CLAIMS

1. A system for synchronizing a plurality of network policies amongst a plurality of network nodes, the plurality of network policies operative of the plurality of nodes to regulate data traffic through the plurality of nodes, the system comprising:

an ordered plurality of classifications of the plurality of network policies, the ordered plurality of classifications including

a first one or more classifications identifying policies enabling collusion between the plurality of network nodes to support a common database of network policies,

a second one or more classifications identifying policies for compressing or expanding information passed amongst the plurality of nodes,

a third one or more classifications including policies for route distribution and selection in the plurality of nodes;

a plurality of local policy databases, each of the plurality of local policy databases residing on a respective node in the plurality of nodes, each of the local policy databases further including a plurality of policy instances operative on the respective node; and

a plurality of synchronization processes resident on the plurality of nodes, the plurality of synchronization processes operative to minimize a convergence time between the plurality of local databases and the common database of network policies, wherein the plurality of synchronization processes are further operative to map network policies received at the respective node to the ordered plurality of classifications.

2. The system of claim 1, wherein the plurality of nodes are distributed across one or more wide area networks.

3. The system of claim 1, wherein the plurality of nodes are at least partially packet-switched.

4. The system of claim 1, wherein the plurality of nodes are at least partially cell-switched.

5. The system of claim 1, wherein the plurality of nodes at least partially overlap one or more autonomous systems.

6. The system of claim 1, wherein the plurality of nodes at least partially overlap two or more autonomous systems.

7. The system of claim 1, wherein the plurality of nodes communicate at least partially via an Interior Gateway Protocol.

8. The system of claim 1, wherein the plurality of nodes communicate at least partially via an Exterior Gateway Protocol.

9. The system of claim 1, wherein the plurality of nodes communicate at least partially via Border Gateway Protocol (BGP)

10. The system of claim 1, wherein the first one or more classifications further identifies policies for validating network information exchanged amongst the plurality of nodes.

11. The system of claim 1, wherein the first one or more classifications further identifies policies for validating information exchanged amongst the plurality of nodes for security.

12. The system of claim 11, wherein the first one or more classifications further identifies policies for validating information exchanged amongst the plurality of nodes for conformance to syntax.

13. The system of claim 11, wherein the first one or more classifications further identifies policies for validating information exchanged amongst the plurality of nodes for appropriate syntax.

14. The system of claim 11, wherein the first one or more classifications further identifies policies for ensuring that information received at the respective node has arrived intact from a trusted source.

15. The system of claim 1, wherein the first one or more classifications further identifies policies for validating security of information exchanged amongst the plurality of nodes.

16. The system of claim 1, further comprising:

a plurality of consistency enforcement processes resident on the plurality of nodes, the plurality of consistent enforcement processes ensuring internal consistency of the plurality of local databases.

17. The system of claim 1, wherein each of the plurality of nodes includes one or more routers.

18. In an inter-network including a plurality of interconnected communications nodes, a method of colluding between the plurality of nodes, the method comprising:

at a first node in the plurality of nodes, receiving a network policy instance from a second node in the plurality of nodes, the network policy instance regulating processing of data traversing the inter-network;

determining consistency of the network policy instance with a local policy database resident in the first node, the local policy database regulating network processing in the first node, determining consistency of the network policy instance further including identifying the network policy instance in a hierarchy of network policies to determine a rank for the network policy instance; and

if and only if the network policy is consistent with the local policy database, adding the network policy to the local policy database.

19. The method of claim 18, wherein the plurality of network nodes are distributed across one or more autonomous systems.

20. The method of claim 18, wherein the plurality of network nodes are distributed across two or more autonomous systems.

21. The method of claim 18, wherein the plurality of network nodes are at least partially packet-switched.

22. The method of claim 18 wherein the plurality of network nodes are at least partially cell-based.

23. The method of claim 18, wherein the inter-network includes one or more Exterior Gateway Protocols.

24. The method of claim 18, wherein the inter-network includes one or more interior gateway protocols.

25. The method of claim 18, wherein the inter-network employs Border Gateway Protocol.

26. The method of claim 18, wherein the network policy instance specifies which of the plurality of nodes are reachable from the first node.

27. The method of claim 18, wherein the network policy instance specifies certificate authorities for authenticating information passed between the plurality of nodes.

28. The method of claim 18, wherein the network policy instance specifies syntax rules for packets received by the first node.

29. The method of claim 18, wherein the network policy instance specifies attestation policies for the first node.

30. The method of claim 29, wherein the attestation policies are based on IPSec.

31. The method of claim 29, wherein the attestation policies are based on MD-5.

32. The method of claim 29, wherein the attestation policies are based on Public Key Infrastructure.

33. The method of claim 18, wherein the network policy instance specifies policies for compressing information forwarded in the plurality of nodes.

34. The method of claim 18, wherein the network policy instance specifies policies for expanding information traversing the plurality of nodes.

35. The method of claim 18, wherein the network policy instance specifies route selection policies.

36. The method of claim 18, wherein the network policy instance specifies route distribution policies.

37. The method of claim 36, wherein the route distribution policies may be time-based.

38. The method of claim 37, wherein the route distribution policies may be event-based.

39. The method of claim 18, wherein the network policy instance includes peer policies, the peer policies determining at least one of a network information base supported by the peer and one or more protocol functions supported by the peer.